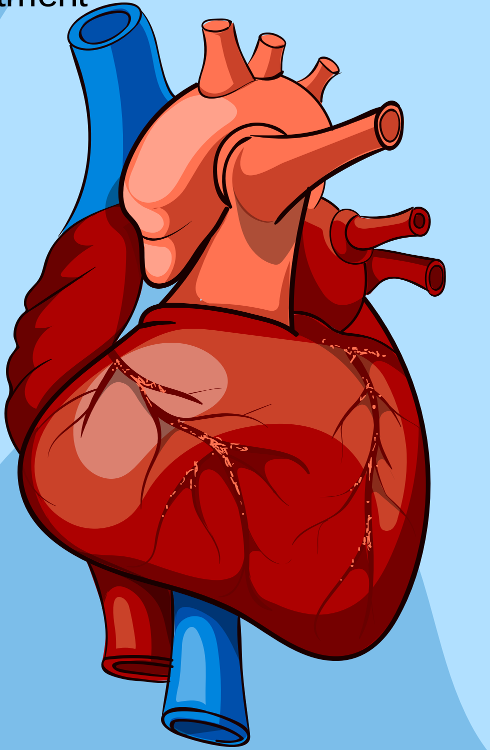
Duhok Polytechnic Uiversity
Shekhan Technical and
Medical College
Nursing department
Stage : 2



Nursing Process for Patient with Myocardial Infarction

Prepared by :

Adeeb Abdulsalam
Nihad Nazil
Snds Ihsan

Supervisor :

Dr, Saad Hussein

TABLE OF CONTENTS

01 Introduction

02 Nursing Process : Assesement

03 Nursing process : Nursing Diagnosis

04 Nursing process : Planning

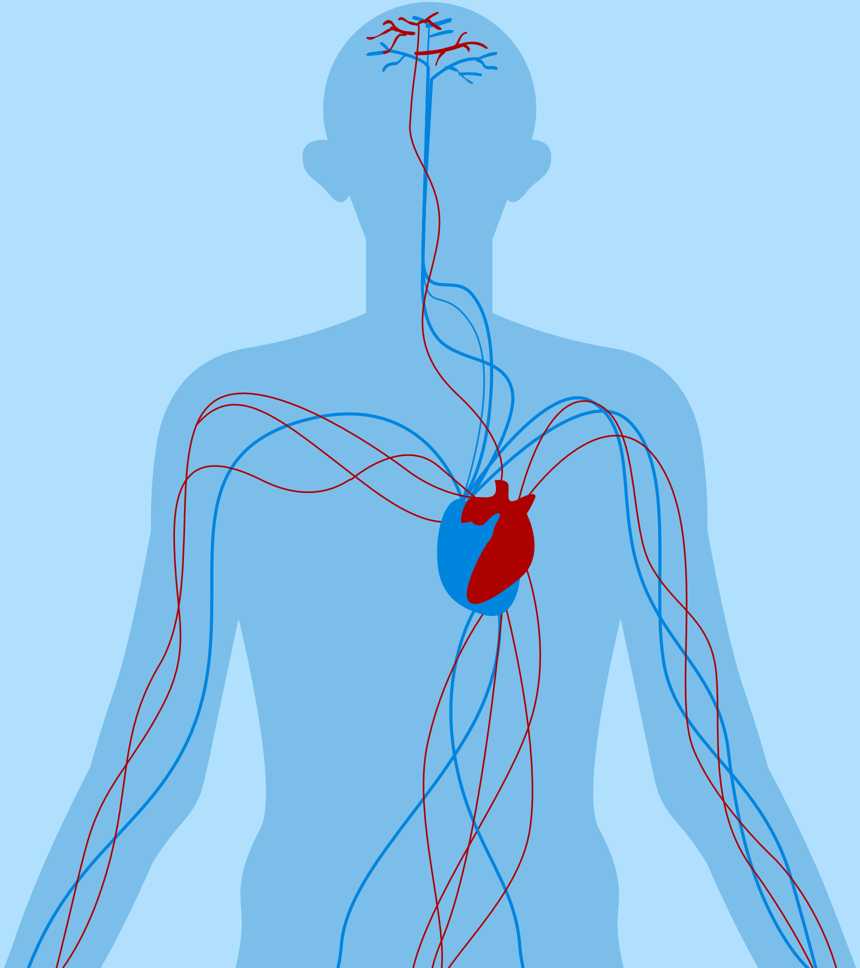
05 Nursing process : Implementation

06 Nursing Process : Evaluation

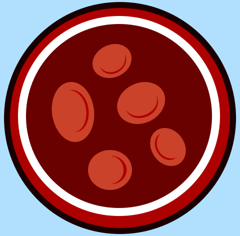
01

INTRODUCTION

Myocardial Infarction (MI), commonly known as a **heart attack**, occurs when the blood flow to a part of the heart is blocked for a prolonged period. This blockage usually happens due to a buildup of plaque (a combination of fat, cholesterol, and other substances) in the coronary arteries, which supply oxygenated blood to the heart muscle. When the blood supply is restricted, the heart muscle tissue begins to die, leading to damage or death of the heart muscle.



TYPES OF MI

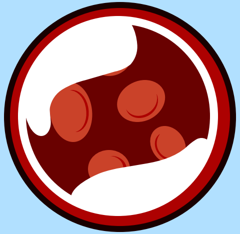


ST-ELEVATION MI

ST-segment elevation usually indicates a total blockage of the involved coronary artery and that the heart muscle is currently dying.

NON-ST-ELEVATION MI

Non-STEMI heart attacks usually involve an artery with partial blockage, which usually does not cause as much heart muscle damage.



SILENT MI

A silent heart attack is one that has no symptoms, mild symptoms or symptoms people don't connect to a heart attack.

Causes Of Myocardial Infraction

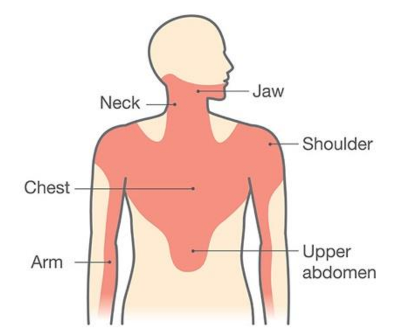
- Atherosclerosis
- Coronary artery spasm
- Blood clot (thrombosis)
- Coronary artery dissection
- Drug use (e.g., cocaine)
- Severe hypotension
- Extreme stress
- Trauma

- High cholesterol
- High blood pressure
- Smoking
- Diabetes
- Obesity
- Lack of physical activity
- Family history of heart disease

Nursing Process for Patient with Myocardial Infarction

1. Assessment

- **Subjective Data**:
  - Patient may report chest pain (pressure, squeezing, or discomfort), radiating pain (to jaw, shoulder, or left arm), shortness of breath, fatigue, and nausea.
- **Objective Data**:
  - Vital signs: Increased heart rate, high blood pressure, rapid or weak pulse.
  - ECG changes (ST elevation or depression), abnormal lab results (elevated troponin, CK-MB).
  - Pale, clammy skin, diaphoresis, or cyanosis.
  - Oxygen saturation may be low.



EARLY DIAGNOSIS
GOOD PROGNOSIS

2-NURSING DIAGNOSIS

- **Acute pain** related to myocardial ischemia.
- **Decreased cardiac output** related to myocardial tissue damage.
- **Ineffective tissue perfusion** related to interruption of coronary blood flow.
- **Anxiety** related to chest pain and fear of death.
- **Risk for fluid volume imbalance** related to the use of diuretics or fluid shifts.
- **Impaired gas exchange** related to decreased oxygenation from poor cardiac output.
- **Risk for complications** such as heart failure, arrhythmias, or cardiogenic shock.

3- Planning for patient

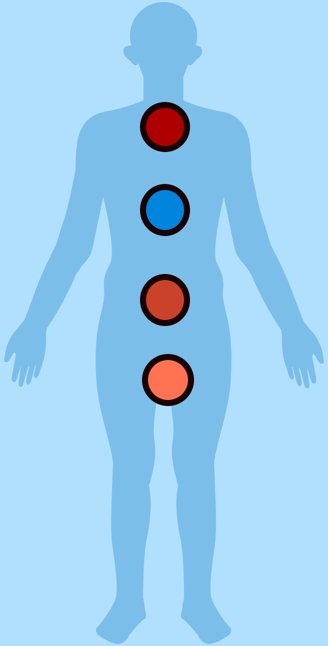
01

02

03

04

- **Pain relief:** Patient will report a reduction in chest pain within 20-30 minutes of interventions.
- **Stabilization of vital signs:** Blood pressure and heart rate will remain within normal limits.
- **Improved oxygenation:** Oxygen saturation will remain at or above 95%.
- **Decreased anxiety:** The patient will demonstrate reduced anxiety and fear.
- **Increased knowledge:** The patient will verbalize understanding of the importance of lifestyle changes to prevent further MIs.



4-IMPLEMANTATION : PHARMACOLOGICAL

Antiplatlet

Asprin

To prevent further clot formation

Beta blocker

metoprolol

o reduce heart workload and decrease oxygen demand.

ACE INHIBITOR

Lisinopril

To prevent heart failure and improve survial

Pain killer

morphine

For severe pain

4- IMPLAMANTATION :
NON PHARMACOLOGICAL

01

CONTINUE MONITORING

ECG, blood pressure, and oxygen saturation to detect arrhythmias and hemodynamic instability.

02

Oxygen therapy

Administer supplemental oxygen if saturation is below 94%.

03

Positioning

Place the patient in a semi-Fowler's position to enhance lung expansion and ease breathing.

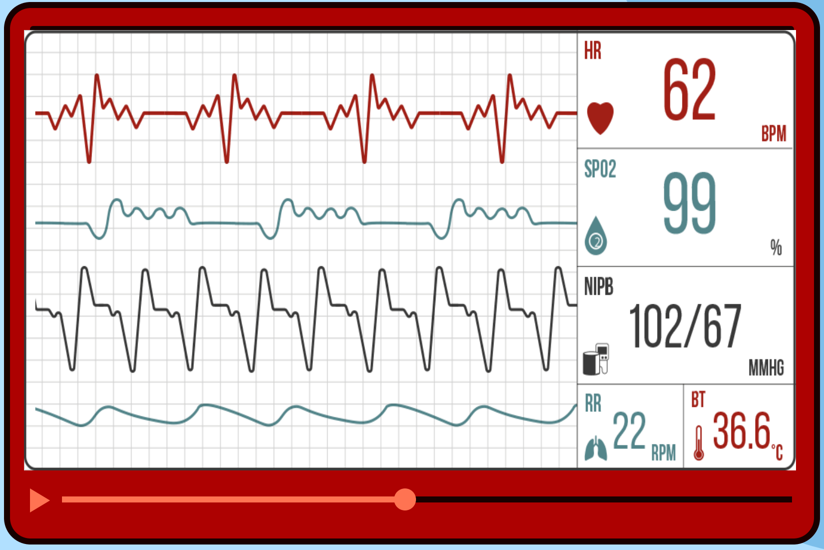
04

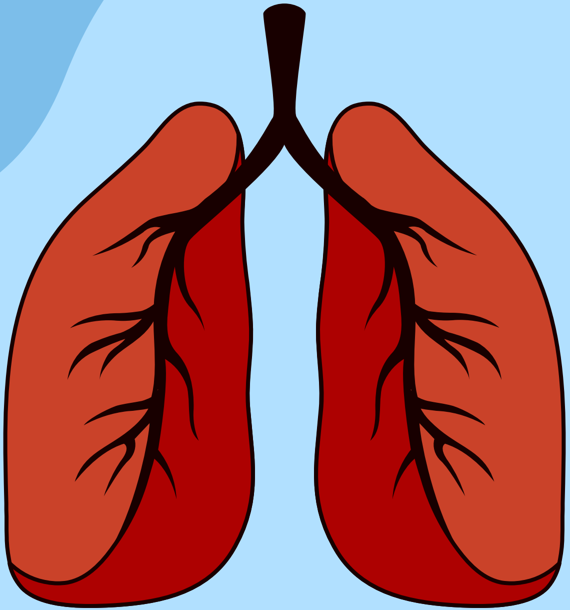
Rest and activity restriction:

Minimize physical activity to reduce cardiac workload during acute phases.

5- EVALUATION

- **Pain reduction**: Evaluate whether the patient's chest pain has been relieved following interventions.
- **Vital signs**: Monitor heart rate, blood pressure, and oxygen levels for stabilization.
- **Cardiac monitoring**: ECG should show improvement in rhythm or resolution of ischemic changes.
- **Lab values**: Monitor cardiac enzymes to assess the extent of myocardial injury.
- **Patient outcomes**: Ensure the patient understands their condition, medication regimen, and lifestyle changes.
- **Complication prevention**: Evaluate for the absence of complications like arrhythmias, heart failure, or cardiogenic shock.





THANKS!

Do you have any questions?

AHA